What i claimed is:

1. A magnetic performance evaluating device for evaluating the flux rise and energy loss incurred in exciting a magnetic component having an external shape, the device comprising:

a flux path closure device having an external shape conforming in at least two locations to the external shape of the magnetic component permitting the flux path closure device to be positioned adjacent the magnetic component so as to form a closed flux path through the flux path closure device and the magnetic component;

an excitation coil configured to excite flux in the part and the flux path closure device through the closed flux path upon excitation of the excitation coil, the excitation coil having terminals;

a signal source in electrical communication with the excitation coil, the signal source being configured to generate an excitation signal to the excitation coil;

excitation leads extending between and electrically coupling the excitation coil to the signal source; and

a monitoring device for monitoring flux through the closed flux path.

2. The device of claim 1 wherein the flux path closure device is fabricated from a material that suppresses eddy current therein.

3. The device of claim 2 wherein the flux path closure device is fabricated from laminated materials.

4. The device of claim 2 wherein the flux path closure device is fabricated from insulated powders.

5. The device of claim 4 wherein the flux path closure device is fabricated from oxide-coated pressed metal particles.

6. The device of claim 1 wherein the signal generated by the signal source is a transient signal.

7. The device of claim 6 wherein the signal generated by the signal source is a voltage signal.

8. The device of claim 6 wherein the signal generated by the signal source is a current signal.

9. The device of claim 1 and further comprising a spacer configured to be juxtaposed between the flux closure device and the magnetic component to have the closed flux path extending through the spacer.

10. The device of claim 9 wherein the spacer is non-magnetic.

11. The device of claim 9 wherein the spacer is non-conductive.

12. The device of claim 11 wherein the spacer is non-magnetic.

13. The device of claim 12 wherein the spacer is ceramic.

14. The device of claim 12 wherein the spacer is glass.

15. The device of claim 1 wherein the excitation coil is attached to the flux path closure device.

16. The device of claim 15 wherein the excitation leads extend through the flux path closure device.

17. The device of claim 1 further comprising a flux coil separate from the excitation coil and flux coil leads coupling the flux coil to the monitoring device.

18. The device of claim 17 wherein the flux coil has less than three turns.

19. The device of claim 18 wherein the flux coil has a single turn.

20. The device of claim 17 wherein the flux coil leads extend through the flux path closure device.

21. The device of claim 1 wherein the monitoring device monitors the voltage across the terminals of the excitation coils and the current through the excitation coils.

22. The device of claim 21 wherein the monitoring device includes calculation circuitry for calculating the magnetic flux in the closed flux path from the monitored voltage and current.

23. The device of claim 22 wherein the excitation coil has a number of turns and a measured resistance and the calculation circuitry calculates the magnetic flux using the number of turns and the resistance.

24. The device of 23 wherein the monitoring device includes integration circuitry for integrating the monitored voltage and current over time and the calculation circuitry calculates an effective resistance for the coil based upon the integrated monitored voltage and the integrated monitored current.